

Surface Mount Switching Diode

* "G" Lead(Pb)-Free

Features:

- *High Speed $\leq 4\text{ns}$
- *Low Rever Leakage Current
- *Small Outline Surface Mount SOD-323 Package

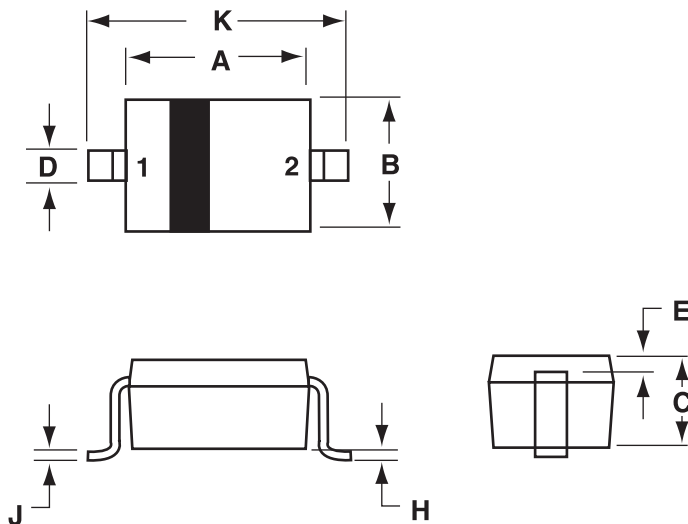
SWITCHING DIODE
200mAMPERS
100VOLTS



SOD-323

SOD -323 Outline Dimensions

Unit:mm



Dim	MILLMETERS	
	Min	Max
A	1.60	1.80
B	1.15	1.35
C	0.80	1.00
D	0.25	0.40
E	0.15REF	
H	0.00	0.10
J	0.089	0.377
K	2.30	2.70

PIN 1.CATHODE
 2.ANODE

Maximum Ratings

Rating	Symbol	Value	Unit
Reverse Voltage	V _R	100	Vdc
Forward Current	I _F	200	mAdc
Peak Forward Surge Current	I _{FM} (Surge)	500	mAdc

Thermal Characteristics

Characteristics	Symbol	Max	Unit
Total Device Dissipation FR-5 Board TA=25°C	P _D	500	mW
Thermal Resistance, Junction to Ambient	R _{θJA}	556	°C/W
Junction and Storage Temperature	T _J , T _{stg}	-55 to + 150	°C

Electrical Characteristics (TA=25°C Unless Otherwise note)


Characteristics	Symbol	Min	Max	Unit
-----------------	--------	-----	-----	------

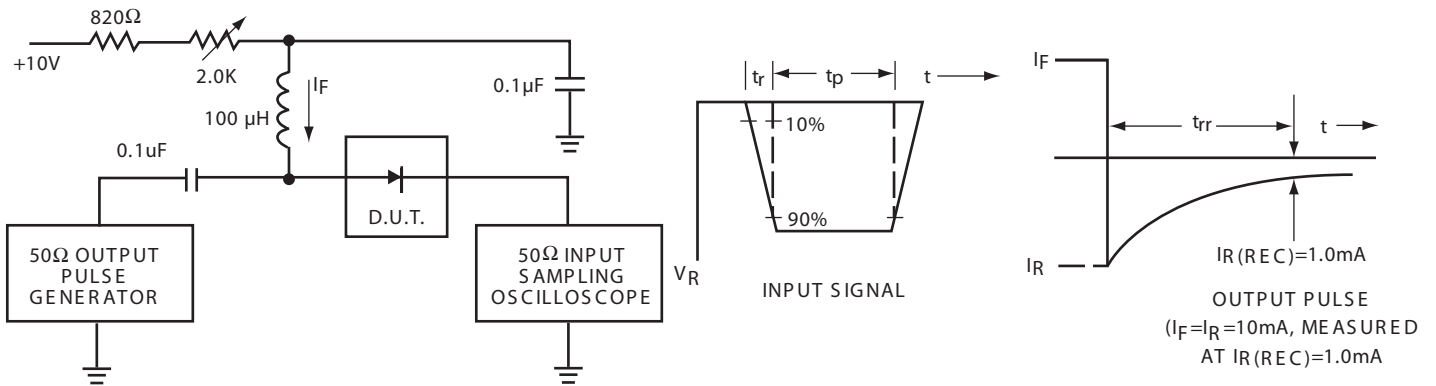
Off Characteristics

Reverse Breakdown Voltage (I _R =100uAdc)	V(BR)	100	—	V _{cc}
Forward Voltage(I _F =10mAdc)	V _F	—	1000	mVdc
Reverse Voltage Leakage Current (V _R =20Vdc) (V _R =75Vdc)	I _R	— —	0.025 5.0	uAdc
Diode Capacitance (V _R =0, f=1.0MHz)	C _T	—	4.0	pF
Reverse Recover Time (I _F =I _R =10mAdc)	t _{rr}	—	4.0	ns

1. FR-5=1.0x0.75x0.062 in 2. Alumina=0.4x0.3x0.024 in. 99.5% alumina.

Device Marking

Item	Marking	Equivalent Circuitdiagram
MMBL4148H	5D	



- Notes: 1. A 2.0 kΩ variable resistor for a Forward Current (I_F) of 10 mA
 2. Input pulses is adjusted so $I_R(\text{peak})$ is equal to 10 mA
 3. $t_p \gg t_{rr}$

Figure 1. Recovery Time Equivalent Test Circuit

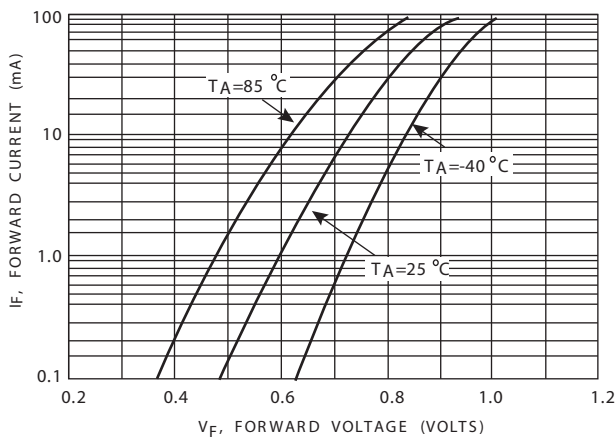


Figure 2. Forward Voltage

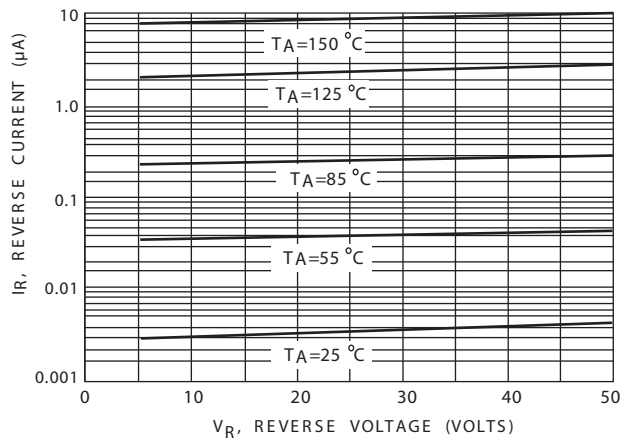


Figure 3. Leakage Current

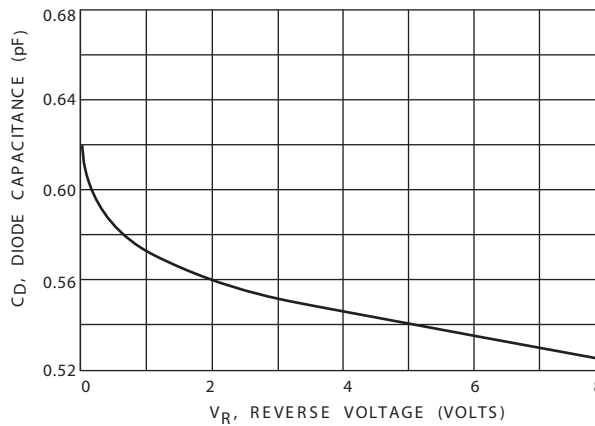


Figure 4. Capacitance